

## WHAT IS CLAIMED IS:

1. A hybridoma comprising a B cell obtained from a transgenic mouse having a genome comprising a human heavy chain transgene and a human light chain transgene, said B cell fused to an immortalized cell suitable to generate a hybridoma, wherein said hybridoma produces a detectable amount of an immunoglobulin that specifically binds interleukin-8.

2. The hybridoma of Claim 1 wherein the immunoglobulin specifically binds  $GR\theta\alpha$ .

3. The hybridoma of Claim 1, wherein the immunoglobulin has an affinity constant ( $K_a$ ) of at least  $2 \times 10^9 M^{-1}$  for binding human interleukin-8.

4. The hybridoma of Claim 1, wherein the affinity constant is at least  $2 \times 10^{10} M^{-1}$ .

5. The hybridoma of Claim 3 wherein the immunoglobulin is selected from the group consisting of 1F8, 2D11, 2F9, 2G1, 3E5, 5E7, 5F10, 5H8, 2C6, 2D6, 3A1, 4D4, 7C5, and 10A6.

6. A composition comprising a substantially pure immunoglobulin produced by the hybridoma of claim 3.

7. A composition comprising a substantially pure human monoclonal antibody, wherein said antibody has an affinity constant ( $K_a$ ) of at least  $2 \times 10^9 M^{-1}$  for binding human interleukin-8, and wherein said immunoglobulin consists of:

a human sequence light chain composed of (1) a light chain variable region having a polypeptide sequence which is substantially identical to a polypeptide sequence encoded by a human  $V_L$  gene segment and a human  $J_L$  segment, and (2) a light chain constant region having a polypeptide sequence which is

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substantially identical to a polypeptide sequence encoded by a  $C_L$  gene segment; and

- 5 a human sequence heavy chain composed of (1) a heavy chain variable region having a polypeptide sequence which is substantially identical to a polypeptide sequence encoded by a human  $V_H$  gene segment, optionally a D region, and a human  $J_H$  segment, and (2) a constant region having a polypeptide sequence which is substantially identical to a polypeptide sequence encoded by a human  $C_H$  gene segment.

8. The composition of claim 7 wherein the human monoclonal antibody specifically binds  $GRO\alpha$ .

9. A method of preventing efflux of neutrophils from vasculature in a patient, comprising administering an effective amount of a human monoclonal antibody having an affinity constant ( $K_a$ ) of at least  $2 \times 10^9 M^{-1}$  for binding human interleukin-8.

10. A method of treating reperfusion injury comprising administering comprising administering to a patient a therapeutically effective dose of a human monoclonal antibody having an affinity constant ( $K_a$ ) of at least  $2 \times 10^9 M^{-1}$  for binding human interleukin-8.

11. A method of suppressing a T-helper cell dependent immune response in a primate, comprising administering a therapeutically effective dose of a human monoclonal antibody having an affinity constant ( $K_a$ ) of at least  $2 \times 10^9 M^{-1}$  for binding human CD-4.

12. The method of claim 11 wherein the primate is a chimpanzee.

13. The method of claim 11 wherein the antibody comprises a VH4-34 segment, a JH5 segment, a heavy chain CDR3 region comprising the sequence VINWFDP, a VKL19 segment, a Jk2

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segment, and a light chain CD3 region comprising the sequence QQANSFPYT.

14. The method of claim 13 wherein the antibody is 6G5.

15. The method of claim 11 wherein the antibody comprises a VH5-51 segment, a JH2 segment, a heavy chain CDR3 region comprising the sequence PANWNWYFVL, a VkL18 segment, a Jk4 segment, and a light chain CD3 region comprising the sequence QQFISYPQLT.

16. The method of claim 15 wherein the antibody is

1G2.

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Q1

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H1

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